

Notice of Allowability

Application No.

10/720,539

Examiner

Kiet Doan

Applicant(s)

LEE, SEONG-HEE

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/05/2007.
2. ☒ The allowed claim(s) is/are 1,3-17,19-33 and 35-52.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 10/02/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This office action is response to Remarks file on 10/05/2007.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stuart Lee at (202) 293-7060 on 01/03/08 and 01/14/08.

The examiner amendment as follow:

Claims 2 ,18, 34 are cancel.

Claim 1. A power consumption reducing apparatus comprising:

a periodic active state conversion unit which, in each awake period, converts an inactive state into an active state, wherein power consumption is greater in the active state than in the inactive state;

a beacon frame reception unit which, in an active state converted by the period active state conversion unit, receives a beacon frame;

an awake window setting unit which, when the beacon frame reception unit receives the beacon frame, and if an interval value of an awake window, in which the active state is maintained for a predetermined time, among field values of the received beacon frame is valid, sets the awake window;

an awake window interval counting unit which counts, in a counting, the interval value in the awake window set by the awake window setting unit; and

an inactive state conversion unit which, if the awake window counting unit finishes the counting, converts the awake window into an inactive state, wherein

if the beacon frame reception unit does not receive the beacon frame within a predetermined time, or if the beacon frame is received within the predetermined time and a length value of the awake window contained in the received beacon frame is not valid, the awake window setting unit converts the active state into the inactive state.

Claim 17. A power consumption reducing method comprising:

(a) converting in each awake period, an inactive state into an active state as a converted active state, wherein power consumption is greater in the active state than in the inactive state;

(b) receiving, in the converted active state, a beacon frame as a received beacon frame;

(c) when the beacon frame is received in the step (b), and if an interval value of an awake window, in which the active state is maintained for a predetermined time, among field values of the received beacon frame is valid, setting the awake window as a set awake window;

(d 1) counting the interval value in the set awake window; and

(e) if the counting is finished in the step (d1), converting the awake window into the inactive state, wherein in the step

(c) if the beacon frame is not received in the step (a) within a predetermined time, or if the beacon frame is received within the predetermined time and a length value of the awake window contained in the received beacon frame is not valid, the active state is converted into the inactive state.

Claim 33. A computer readable medium having embodied thereon a computer program for enabling a computer to provide a service of reducing power consumption, the service comprising:

(a) converting in each awake period, an inactive state into an active state as a converted active state, wherein power consumption is greater in the active state than in the inactive state;

(b) receiving, in the converted active state, a beacon frame as a received beacon frame;

(c) when the beacon frame is received in the step (b), and if an interval value of an awake window, in which the active state is maintained for a predetermined time, among field values of the received beacon frame is valid, setting the awake window as a set awake window;

(d 1) counting the interval value in the set awake window; and

(e) if the counting is finished in the step (d 1), converting the awake window into the inactive state, wherein in the step

(c) if the beacon frame is not received in the step (a) within a predetermined time, or if the beacon frame is received within the predetermined time and a length value of the awake window contained in the received beacon frame is not valid, the active state is converted into the inactive state.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

Accordingly, claims 1, 17 and 33 are allow base on Remarks file on 04/11/2007 and 10/11/2007 and further examiner's amendment which over come the prior art.

Claims 3-16, 19-32, 35-52 are allow as being dependent on the independent claims 1, 17 and 33.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

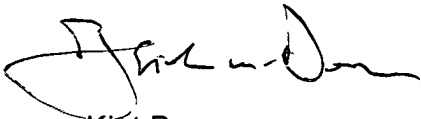
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 571-272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kiét Doan
Patent Examiner



JOSEPH FEILD
SUPERVISORY PATENT EXAMINER